

# Morehead student earns NASA scholarship for research



MSU

The academic work of a Morehead State University student has caught both the attention and financial support of the National Aeronautics and Space Administration.

**Bill Atwood**, a junior from Stanford, received a \$4,000 NASA scholarship through the Kentucky Space Grants Consortium for his research this academic year on the microvariability of active galactic nuclei. He works as an undergraduate research assistant at the university's Ronald G. Eaglin Space Science Center.

Hundreds of faculty and students at 18 colleges and universities in the state have participated in the consortium and its related organization, the NASA Experimental Program to Stimulate

Competitive Research projects. The EPSCoR Program has steered more than \$221 million in research and development funding, primarily from the federal government, to Kentucky's academic institutions, including Morehead State. Atwood is the first MSU student to receive a space grants scholarship.

Using the university's 21-meter space tracking antenna and associated instrumentation, Atwood monitors active galactic nuclei for variability in radio emission on time scales ranging from seconds to years. He is working in conjunction with students and faculty at Western Kentucky University who monitor the AGNs using their 2.4-meter optical telescope.

The data from both instruments are compared to provide insight into the energetics and underlying physics of these distant phenomena. AGNs are extremely distant galaxies that have enormous black holes in their nuclei, and these disturb the nearby stars, gas and dust, creating powerful explosions in the process.

Atwood explained that all matter at the atomic and molecular level emits radio waves and other energies of electromagnetic radiation.

"What I look for are changes in radio frequencies, the size of the region associated with the disturbance and power variations," he said.

He also is working on a gas spectrometer that allows him to produce a power spectrum of these distant objects.

Atwood often monitors the constellation Cygnus, some 1.8 billion light years away. Cygnus' great distance from the Earth, even though it is relatively close by astronomical standards, means that the signals he picks up from it are very old. "We're all kind of historians here, really," he said.

Atwood said his background serving in the military helped prepare him for his academic work at Morehead State, and that he first learned about celestial navigation in the Navy. At the space science center, he works under the supervision of **Benjamin Malphrus**, professor of space science and director of the center.

## Corcoran named to head NKU's Arts and Sciences college

**Kevin Corcoran** has been appointed dean of the College of Arts and Sciences at Northern Kentucky University.

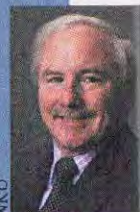
Corcoran, on leave from his position as head of the Department of Psychology at the University of Cincinnati, has been at NKU since last August as an American Council on Education Fellow.

"I am confident that Dr. Corcoran will bring extraordinary leadership to the college and the broader university community," said Gail Wells, vice president for academic affairs and provost.

Corcoran said his experience at NKU helped with his decision. "I was very impressed with the combination of talent and dedication at NKU—among faculty, staff and students,"

Corcoran said. "There is a real sense of mission and purpose here that is quite striking. In the six months I have been here, I have found people's enthusiasm for their work impressive.

"I might also add that I have noticed that the vast majority of people I've met take their work very seriously, but themselves less so—that's a wonderful combination."



Kevin Corcoran